

## Electrical safety barrier for protection of electrical load elements placed in potentially hazardous locations

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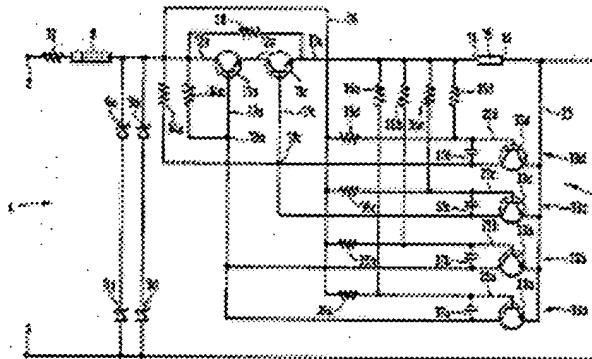
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The barrier input and output each have two terminals. In at least one connection between the barrier input and the barrier output, there is an electronic in-line control element having a control input as well as, in series with the in-line control element, a current sensing element that emits an output voltage corresponding to the current. A control circuit having a control input controls the conductive state of the in-line control element and to this end receives the output voltage of the current sensing element. In accordance with the invention, to obtain a steeper limiting characteristic, the control voltage for the control circuit is the sum of at least part of the output voltage of the current sensing element and at least part of a voltage corresponding to the voltage drop in the in-line control element. The control element is formed by two serially connected transistors (11a, 11b); the control circuit includes four active elements (33a-33d) which are connected to individual summing circuits and provide, in pairs, output signals to control the serially connected transistors.



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